ENGLAND TO-DAY—AND YESTERDAY*

By M. C. BUER, D.Sc.

Whether or not readers agree that "a high death-rate is always accompanied by a high sickness and disablement rate," they cannot but be impressed by the solidity and reliability of Miss Buer's statistical work. We greatly need the facts she brings out.—Ed.

ONE of the chief difficulties of the economic and social historian is that contemporary records naturally tend to deal with the unusual and the abnormal. The most difficult question to answer about any past age is, "How did the ordinary man live?"

Biography, memoirs, and fiction throw some light on the everyday lives of the educated few, but tell us little, and that little often of doubtful reliability, as to the inarticulate majority. It is from this point of view that social statistics are so valuable, since all of us, however humble and ordinary we may be, have our place in the census. In statistical returns the socially undistinguished, either by success or failure, are revealed in their battalions, bringing into perspective the feeble companies which attain the notoriety of the newspaper paragraph.

How poor a guide contemporary popular opinion may be is illustrated by the general belief that crimes of violence have increased in this country since 1913, for which supposed increase a facile explanation is found in the cheapening of human life and values engendered by war experience. But cold statistical fact reveals that the annual average of crimes against the person was smaller (despite an increased population) in the years 1919-23 than in the years 1909-13. A similar fall in crimes against the person occurred in the period following the Napoleonic Wars. In neither period was the fall necessarily the effect of war; in both it was probably associated with a decreased consumption of alcohol and with a rising social standard. But the facts show that the opinion that war experience would lead to crime in civil life was based on false psychology.

The useful corrective of statistical information is, of course, only available for very recent history. Interest in the subject of social and vital statistics began as early as the mid-seventeenth century; but early inquirers were terribly hampered by the extreme paucity of the available statistical material. There was no census in this country until 1801, and no civil registration of births and deaths until 1836. There was, however, fairly complete registration of baptisms in the Established Church, of marriages, the celebration of which, from 1754 onwards, was not legal unless performed according to the rites of the Established Church, and, lastly, of interments in burial grounds attached to the Established Church.

In 1801 a return was made of the entries in the parish registers for every decennial year from 1700 to 1780, and for every year from 1780 to 1800. By assuming the baptismal rate to be a constant it was then possible to calculate the size of the population at every decennial year of the eighteenth century. Several different calculations were made with various modifications of this method with differing, but not widely differing, results. The details will be found in the first chapter of *Population Problems of the Age of Malthus.*

The disadvantage of all the methods was that they were based on the baptism rate, and therefore precluded any calculation of the birth-rate. Mr. Griffith, therefore, has

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* *A Survey of the Social Structure of England and Wales as illustrated by Statistics,* by A. M. Carr-Saunders and D. Caradog-Jones. (Oxford University Press, 1927, 10s.).

Population Problems of the Age of Malthus, by G. Talbot Griffith, B.A. (Cambridge University Press, 1926.)

A History of Factory Legislation, by B. L. Hutchins and H. Harrison (Mrs. F. H. Spencer), D.Sc. Third edition. (P. S. King & Son Ltd., 1926, 9s.).

boldly ventured upon another method. Assuming that the births exceeded the baptisms by 15 per cent. and the deaths the registered burials by 10 per cent., he has calculated by deduction the population of the eighteenth century. Since the figures for baptisms and burials prior to 1780 are only available for the decennial years, he has been forced to take these years as typical of their respective decades. There are two grave possibilities of error in Mr. Griffith's calculations. Firstly, his corrections for obtaining the number of births and deaths may not be sufficient.

The registered births for the year in which civil registration was introduced (1836) show an excess of 15 per cent. over the baptisms registered in the previous year—hence the percentage chosen by Mr. Griffith. But though civil registration was introduced in 1836, it was not compulsory and no penalties attached to non-compliance until the Act of 1874. Farr estimated the average deficiency in the registration of births between 1836-76 at 5 per cent. Sir Arthur Newsholme considers that no importance can be attached to the apparent rise in the birth-rate up to 1876, since it was probably due to an increasingly efficient registration. Rickman estimated in 1831 that at least 19 per cent., and probably more, should be added to the baptisms of that time to obtain the births.

It would seem, therefore, that a 15 per cent. addition is unduly small; and, as Mr. Griffith himself points out, by his method of calculation a very small error in the original adjustment, by accumulation, would lead to a large error in the final results. No doubt it is this consideration that prevented the use of his method by earlier calculators, since it is an obvious one to adopt provided the correction from baptisms to births and from interments to deaths can be made with any degree of exactitude. It is probable that the correction of 10 per cent. to obtain the deaths is also too small; if so, the error from the point of view of calculating the population is to some degree neutralized.

It is, of course, unlikely that a flat-rate correction for the whole period is accurate, but this objection applies equally to all calculations based upon the Parish Registers. More serious is the possibility that the decennial years may not present the average of the decade; in this connection it must be remembered that in the eighteenth century annual fluctuations in birth and death-rates were very much larger than they are in modern times. Mr. Griffith himself is well aware of these possibilities of error and calls attention to them. Nevertheless, in spite of them, his calculations as to the size of the population of England and Wales in the eighteenth century seem well worth the making. When, however, he proceeds to the calculation of birth and death-rates, with their double possibility of error, setting them out to one (in the later period to two) place of decimals, it appears likely that the ordinary reader will be given a very false sense of security.

If Mr. Griffith had omitted the decimal places and added " plus or minus " to his figures it would have given a truer presentment of their value—not, be it understood, owing to any fault in the method of manipulation, but owing to the nature of the material with which he has had to deal. But not only are the rates set out in a manner which gives a false idea of their exactitude, but Mr. Griffiths, while in one place pointing out the large possibilities of error, in other parts of his text comments on the figures as if they possessed a high degree of reliability and as if relatively small movements were significant. It is perhaps better to admit that, however much the historian may desire exact vital statistics, we are not likely to obtain them for the period prior to 1780 by any ingenious juggling with published figures.

A careful survey of parish registers by well selected sample may yield something to the future researcher. At present we must be content with estimates of population, which are admittedly open to a wide margin of error. This, however, is not in itself of much importance; but it does vitiate any attempt to make exact calculations of birth and death-rates. By 1780 we are on firmer ground, though the margin of error is still

wide; and from this date onwards it is possible to be in substantial agreement with Mr. Griffith's figures, though not with the degree of exactitude which he appears to claim, but perhaps does not.

Sometimes one is tempted to envy the future historian of the twentieth century, who will not be reduced, as is the student of the eighteenth century, to attempting to make bricks without straw. The poor fellow will probably rather be inclined to lament the plethora of his material, and he will rejoice when he comes across a survey of social statistics giving him a good ground upon which to build a picture of the social structure of England and Wales *circa* 1926. Contemporaries even more owe a debt of thanks to the authors for giving in such a clear and interesting form the main statistical facts of their own times.

The authors' comments, too, are enlightening and enlivening. And yet, perhaps, the result is not so informing as it ought to be. The reason is that the picture is mainly static: if the past is mentioned it is only the recent past, and there is no comparison with other countries. This is probably not the authors' fault: it is due to the absence of strictly comparable statistics and possibly also to exigencies of space and cost of production. However, in the figures of the growth of population, the authors do go back to 1801 and even, following Professor Bowley, venture into the future.

Being strict statisticians they do not venture into the past further than the first census year. But this strictness causes the table showing the growth of population between 1801 and 1921 and the hypothetical lack of growth after 1941, to give a somewhat false impression. It leads the reader to infer that rapid growth was normal until the present time, but that now a new and abnormal period is setting in. Had the estimated population of previous centuries been added, the growth between 1801 and 1901 would have been seen in truer perspective, and the return to stability would have appeared as neither new nor strange. After all, a hundred years is a very short time in the history of a nation. It is true, however, that the low birth and death-rates of the present day are new phenomena; but these also are brought into clearer relief by comparison with the past.

Dealing summarily with the vital statistics of the last 150 years, it may be said that prior to 1870 the alterations in the birth-rate are relatively small and show an absence of long period tendencies in either direction. The apparent changes may, in fact, be quite illusory. In 1870 the period with a falling rate commences. Circa 1780 the birth-rate was about 36 per 1,000; in 1870-5 it was 35.5, but in 1926 it was only 18.3. In the death-rate a period of fall occurs between 1780-1815, probably from about 28 per 1,000 to 20, then follows a period with a slight rise up to 1825 (22.5 per 1,000). A static period follows until 1870, when a further period with a falling rate begins. The figure for 1926 was 12.2.

It is interesting to note that the natural increase was approximately the same in 1924 as in the second half of the eighteenth century, but that astonishingly different rates yielded the same result in growth—in the first period 36 births and 28 deaths, in the latter 19 births and 11 deaths (to the nearest unit). Have we sufficient imagination to clothe these dry bones with living flesh and to visualize the saving in unavailing travail, in infant suffering, in physical and mental pain? If so, let us in future silence idle talk about the good old days with an argument that cannot be controverted.

There are many, however, who view modern birth and death-rates far from optimistically. From two points of view there is felt to be cause for anxiety. Firstly, there is the fact that the poorer sections of the community are contributing a proportionately greater number of recruits to the population. There is a great deal of difference of opinion as to whether the poorest members of the community are an inferior stock biologically, but it is certainly true that the children of the poorest classes are brought up in an inferior environment. This is particularly the case among members of large families. This inferiority of environment continues in spite of our

numerous social services, and would remain even if these services were much further increased.

It is probable, however, that the differential birth-rate among classes is a temporary phenomenon. Figures presented last year to the World Population Conference at Geneva showed that in Stockholm the upper-class birth-rate is now actually higher than that of the working-class. Figures quoted in a recently published study of Australia* show that in that country the difference in the birth-rate between different social classes is inappreciable. The working-class birth-rate in England and Wales has fallen rapidly in recent years. This fall was at first mainly confined to certain skilled trades, but it has now become much more general.

Many persons view the falling birth-rate with apprehension because of its effect upon the age composition of the population. A prospect of more old people and fewer children in the population does not, indeed, at first sight seem very pleasing; many of us feel that there are too few children among our acquaintance already. The lower birth-rate will not, however, mean fewer children among the relatively well off. It is unlikely that the birth-rate among the upper and middle-classes and the skilled working-class will be still further reduced. Indeed it quite conceivably might be slightly increased by more liberal taxation allowances for children and by cheaper facilities for higher education. A future further reduction of the number of children in the population would mean fewer underfed children reared amid bad housing conditions—a by no means alarming outlook.

In the same way, more old people will not mean more elderly persons than at present among the better-off classes, but fewer workers prematurely worn out. And though the age composition in future years in itself may be less favourable from the economic standpoint when there will be proportionately fewer young adults, yet this factor may be more than compensated by the superior health and efficiency of the working population, due to better nurture.

Since 1900 the effect of the falling birth-rate upon the age composition of the population has been to some degree neutralized by the fall in the infantile death-rate. The fall in the death-rate in the period 1870-1900 did not include a fall in the infantile mortality. In this it differed from the fall during the period 1780-1815, which appears to have been mainly due to a saving of infantile and child life. Before 1780 the age composition may not have been markedly different from that of the present day except for the greater number of infants and very young children, a large proportion of them doomed to an early death.

It was estimated that in north-western Europe about 1780 one half of the children born died before reaching the age of ten years. This figure had been reduced to one-third by 1815. It has been calculated that in eighteenth-century London threequarters of those born died before reaching the age of five years. Therefore the proportion of older children and young adults in the population was very likely not much greater than at present. Farr considered that the youthful age composition of the English people about 1830 was a new phenomenon.

Possibly part of the push and enterprise of the nineteenth century was due to its predominant youthfulness and to the fact that members of large middle-class families had to make their own way in the world. It is, however, to cry for the moon to hope for Victorian families in the future among the better-off sections of the community, and it is a strange mentality, obscured by old shibboleths, that can desire them to be continued among the very poor. A very slowly increasing or a stationary population seems highly probable in the near future, even a diminishing one is a possibility. We can only hope that quality will replace quantity, and all our efforts should be directed to that end.

There are those who will be sceptical as to the possibility of improving the quality of the population owing to the lessening of the vigour of natural selection. It is not pro-

* *The Prosperity of Australia.* F. C. Benham.

posed to enter into the controversy between heredity and environment; but the historical facts, so far as they can be ascertained, do not support a pessimistic view. There are, of course, no statistical data for a comparison in regard to quality of population between the eighteenth and early nineteenth centuries and the present day; but a knowledge of the earlier period leads to the conviction that the present day has nothing to fear in the comparison.

A high death-rate is always accompanied by a high sickness and disablement rate. Further, there is no evidence that the diseases which have been conquered, smallpox, typhus, typhoid, and cholera were beneficially selective. Even if they were, they left the survivors so weakened and injured that any beneficially selective action was more than counteracted. And, of course, even in the eighteenth century the Poor Law and private charity were doing much to prevent the working of " natural selection " and already the cry was being raised that the unfit were being kept alive.

The fact is that to rely on " natural selection " amid civilized conditions is impossible. The sentiments of civilized man will not allow starvation and disease to complete the work of selection, so that any reliance on the principle results in a number of survivors injured by under-nutrition and disease. Quality must be obtained by some less self-defeating method than high birth and death-rates.

Those who are interested in the subject of this article will do well to study the two books more especially under review. Mr. Griffith's book is not very easy to read; he has much to learn in method of presentation, and the writer of the review has not found it possible to agree with all his conclusions. But his book contains valuable material. For one thing he seems to have disposed of the hoary legend that the Speenhamland system of family allowances led to a higher birth-rate. His chapter on Ireland brings together facts which are not readily accessible elsewhere, and that on early medical reform contains much fascinating material.

Professor Carr-Saunders and Mr. Caradog Jones cover a much wider field than is indicated in this article. Their book is one to be read by all students of social subjects. In spite of its subject matter it is very easy to read, and the method of presentment reveals the practised hand.

If some of the figures and facts in *Social Structure* might lead us to pessimism we can re-read, as an antidote, the first chapters of *Factory Legislation,* which valuable standard work it is pleasant to see in a third edition. If the study of the present day, as revealed in *Social Statistics,* shows us the long road still ahead in the journey of social progress, the *History of Factory Legislation* and *Population Problems in the Age of Malthus* cheer us with the reminder of the arduous pilgrimage already achieved.